

**What is claimed is:**

1. A simplified model creation assisting apparatus used when a simplified model is created from  
5 a displayed detailed shape, comprising:

a selecting unit selecting a point on a displayed detailed shape;

a generating unit generating a plane configured by selected points; and

10 a model generating unit generating a simplified model corresponding to the detailed shape composed of data which indicates the generated plane.

2. The simplified model creation assisting apparatus according to claim 1, wherein  
15 a selection of the point is graphically made with a mouse pointer.

3. The simplified model creation assisting apparatus according to claim 1, wherein  
20 the simplified model is configured by a plurality of polygons.

4. The simplified model creation assisting apparatus according to claim 3, wherein  
25

the plurality of polygons are triangles.

5. The simplified model creation assisting apparatus according to claim 3, wherein

5 the plurality of polygons are quadrangles.

6. The simplified model creation assisting apparatus according to claim 1, wherein

a selection of the point is made on a display  
10 screen on which a detailed shape is displayed, and a simplified model configured by selected points is displayed in a display region different from the detailed shape.

15 7. The simplified model creation assisting apparatus according to claim 1, wherein

a selection of the point is made on a display screen on which a detailed shape is displayed, and a simplified model configured by selected points is  
20 overlaid on the detailed shape, and displayed.

8. The simplified model creation assisting apparatus according to claim 7, wherein

one of the simplified model and the detailed shape  
25 is drawn translucently, the simplified model and the

detailed shape are displayed in different colors, or one of the simplified model and the detailed shape is drawn translucently and the simplified model and the detailed shape are displayed in different colors.

5

9. A simplified model creation assisting method used when a simplified model is created from a displayed detailed shape, comprising:

selecting a point on a displayed detailed shape;  
10 generating a plane configured by selected points;  
and

generating a simplified model corresponding to the detailed shape composed of data which indicates the generated plane.

15

10. The simplified model creation assisting method according to claim 9, wherein  
a selection of the point is graphically made with a mouse pointer.

20

11. The simplified model creation assisting method according to claim 9, wherein  
the simplified model is configured by a plurality of polygons.

25

12. The simplified model creation assisting method according to claim 11, wherein  
the plurality of polygons are triangles.

5           13. The simplified model creation assisting method according to claim 11, wherein  
              the plurality of polygons are quadrangles.

10          14. The simplified model creation assisting method according to claim 9, wherein  
              a selection of the point is made on a display screen on which a detailed shape is displayed, and a simplified model configured by selected points is displayed in a display region different from the 15 detailed shape.

15          15. The simplified model creation assisting method according to claim 9, wherein  
              a selection of the point is made on a display 20 screen on which a detailed shape is displayed, and a simplified model configured by selected points is overlaid on the detailed shape, and displayed.

25          16. The simplified model creation assisting method according to claim 15, wherein

one of the simplified model and the detailed shape  
is drawn translucently, the simplified model and the  
detailed shape are displayed in different colors, or  
one of the simplified model and the detailed shape is  
5 drawn translucently and the simplified model and the  
detailed shape are displayed in different colors.

17. A simplified model creation assisting  
program used when a simplified model is created from  
10 a displayed detailed shape, which causes an information  
processing device to execute a simplified model creation  
assisting method, the method comprising:

selecting a point on a displayed detailed shape;  
generating a plane configured by selected points;  
15 and

generating a simplified model corresponding to  
the detailed shape composed of data which indicates the  
generated plane.

20 18. The simplified model creation assisting  
program according to claim 17, wherein  
a selection of the point is graphically made with  
a mouse pointer.

25 19. The simplified model creation assisting

program according to claim 17, wherein  
the simplified model is configured by a plurality  
of polygons.

5           20. The simplified model creation assisting  
program according to claim 19, wherein  
the plurality of polygons are triangles.

10          21. The simplified model creation assisting  
program according to claim 19, wherein  
the plurality of polygons are quadrangles.

15          22. The simplified model creation assisting  
program according to claim 17, wherein  
a selection of the point is made on a display  
screen on which a detailed shape is displayed, and a  
simplified model configured by selected points is  
displayed in a display region different from the  
detailed shape.

20  
23. The simplified model creation assisting  
program according to claim 17, wherein  
a selection of the point is made on a display  
screen on which a detailed shape is displayed, and a  
25 simplified model configured by selected points is

overlaid on the detailed shape, and displayed.

24. The simplified model creation assisting program according to claim 23, wherein

5 one of the simplified model and the detailed shape is drawn translucently, the simplified model and the detailed shape are displayed in different colors, or one of the simplified model and the detailed shape is drawn translucently and the simplified model and the  
10 detailed shape are displayed in different colors.

25. The simplified model creation assisting(?) apparatus according to claim 1, wherein

the data which indicates the generated plane is  
15 composed of data of the selected points, data of lines connecting the points, and data of a plane of a region enclosed by the points and the lines.

26. The simplified model creation assisting method according to claim 9, wherein

the data which indicates the generated plane is composed of data of the selected points, data of lines connecting the points, and data of a plane of a region enclosed by the points and the lines.

27. The simplified model creation assisting program according to claim 17, wherein

the data which indicates the generated plane is composed of data of the selected points, data of lines  
5 connecting the points, and data of a plane of a region enclosed by the points and the lines.